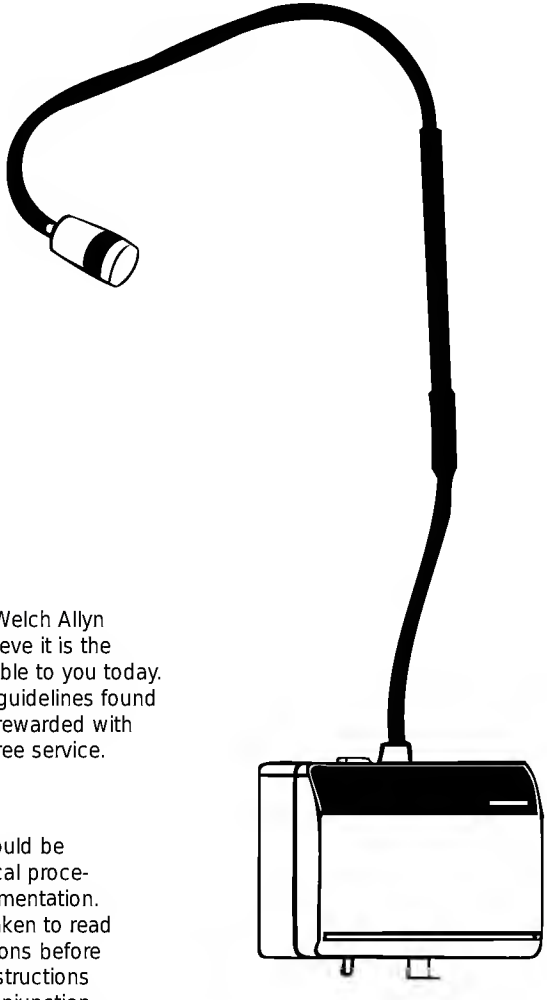
Exam / Procedure Light

Service Manual

HALOGEN EXAM LIGHT II

No. 48600 No. 48610
No. 48625 No. 48635



Thank you for purchasing the Welch Allyn Halogen Exam Light II. We believe it is the finest product of its kind available to you today. By following the care and use guidelines found in this booklet, you should be rewarded with years of dependable, trouble-free service.

WARNING

The user of this equipment should be thoroughly trained in the medical procedures appropriate to the instrumentation. Furthermore, time should be taken to read and understand these instructions before performing any procedures. Instructions for other equipment used in conjunction with the Exam Light II (e.g., electrosurgical generators, suction machines, etc.) should also be read and understood. Failure to do so may result in injury to the patient and/or damage to the instrument.

CE UL SA

Welch Allyn®

MOUNTING

WALL MOUNTING

- Choose appropriate mounting location.
- Using mounting plate as template, mark drilling holes as needed for your wall type:

Dry wall, paneling, thin plywood or plaster walls less than 1 inch (2.5 cm) thick.
Drill four .31 inch (.79 cm) holes, insert hollow metal wall anchors making sure barbs are extended.

Concrete block or thick plaster walls greater than 1 inch (2.5 cm) thick.
Drill four .25 inch (.64 cm) holes, insert plastic anchors.

Metal panel or wood walls greater than 1 inch (2.5 cm) thick.
Drill four .31 inch (.79 cm) holes.

- Install mounting plate with appropriate screws. When tightened, there will be a gap between the screw heads and surface of the mounting plate.
- Mount unit by fitting key hole slots on back of unit over screw heads.
- Push unit against wall while pushing down to lock screw heads into small end of key hole slots.

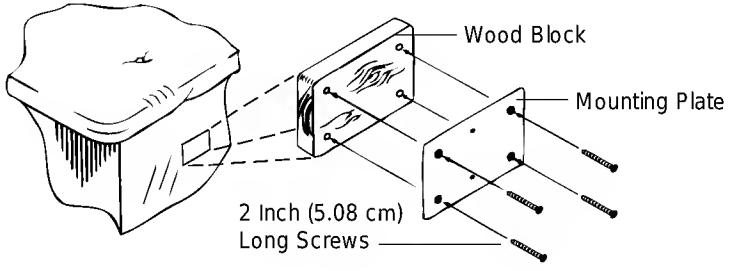
TABLE MOUNTING

NOTE: Some table manufacturers supply table mounting hardware for mounting the Exam Light II. Check with your table supplier for availability.

- Determine side of table for mounting the Exam Light II.
- Trace the outline of the mounting plate and mark the hole locations on a 1.00 inch (2.5 cm) thick piece of wood.
- Cut the piece of wood to the outline size and drill four .25 inch (.64 cm) holes.
- Using the mounting plate as template, mark the hole locations on the table and drill four .25 inch (.64 cm) holes.

NOTE: Be sure mounting location is at least 10 inches (25.4 cm) below table cushion, and that mounting will not obstruct table interior.

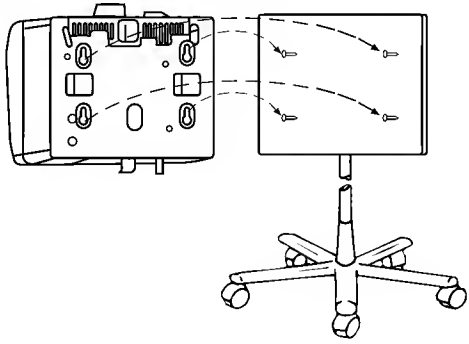
- Using four 10-32 x 2 inch (5.08 cm) machine screws with lock washers and nuts, install the block of wood and the mounting plate to the table as shown in diagram.
- Mount unit as with wall mounting.



MOUNTING

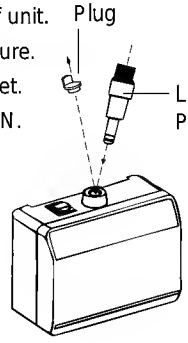
MOBILE MOUNTING

- Mount unit by fitting key hole slots on back of unit over screw heads.
- Push unit against mounting plate while pushing down to lock screw heads into small end of key hole slots.

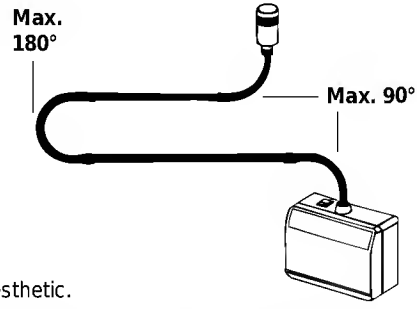


SET UP

- Carefully remove plastic plug from light pipe holder on top of unit.
- Insert fiber optic light pipe into light pipe holder until it is secure.
- Plug power cord into base of unit and into AC grounded outlet.
- Position the power switch located on the top of the unit to ON.



NOTE: Please refer to use of light pipe section prior to using unit.



To ensure long unit life, high light output and continued position rigidity, we recommend that you do not acutely bend the Light Pipe. For example: Middle Bend—not more than 180°. End Bends—not more than 90° each.

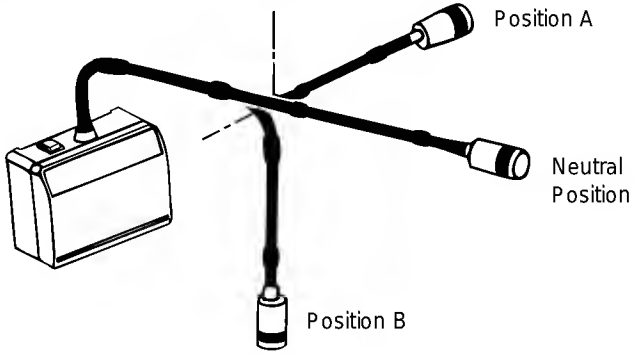
WARNING:

Not for use in the presence of flammable anesthetic.

Do not use Model 48200 (Standard model) Light Pipe for neonate transillumination. Even though the distal end of the light pipe does not feel warm to the touch, it can burn neonates. Erythema may result from contact of more than 15 seconds. Use Model 48210 Neonate Transilluminator for safe transillumination.

Operation Of Light Pipe

The flexible portions of the fiber optic Light Pipe are designed to be bent, but not twisted. Twisting, or torque, will decrease the life of the flexible portions, causing drooping of the Light Pipe and eventual breakage of the fiber optics. As in the illustration, once a section is bent into position A, for example, it must first be returned to the neutral position before bending into position B. This prevents the twisting motion of moving directly from A to B that could prove harmful to the unit. For best response, always position the fiber optic Light Pipe by moving in the same direction as gravity. If the fiber optic bundle needs to be raised, raise it above the desired position and then lower to the desired position.



Special Note: Upon manufacture, the Light Pipe is tested to assure maintenance of position and absence of noise. Over a period of time it is normal for the Light Pipe to soften and become less obedient. Abnormal softening or occurrence of noise should be reported to Welch Allyn.

Warning:
When pulling out the Light Pipe, push down on the light box to avoid lifting it off of the mounting plate and possibly dropping it.

Neonate Transilluminator

No. 48210

Use in place of Model 48200 for neonatal transillumination.

The neonate transilluminator is useful for transilluminating neonates as a means to help diagnose pneumothorax, locate blood vessels, etc.

This transilluminator includes filters that prevent skin temperature rise in excess of 39°F (4°C) when in contact for five minutes or longer.

NEONATE TRANSILLUMINATOR

CAUTION:

Use only Welch Allyn Transilluminator No. 48210 for neonatal transillumination.

SET UP AND OPERATION

Refer to Set Up page for installation steps.

LAMP REPLACEMENT

WARNING:

Lamps operate at a high temperature and under pressure may shatter. Do not attempt to replace lamp while hot. Wait until lamp is cool.

1. Turn power switch to "Off" position, unplug cord from outlet and from Light box.
2. Release interlock by sliding interlock arm to left. Pull lamp holder until lamp is fully exposed. **(Lamp holder will not slide down if Interlock is not released)** Diagram #1.

Diagram #1

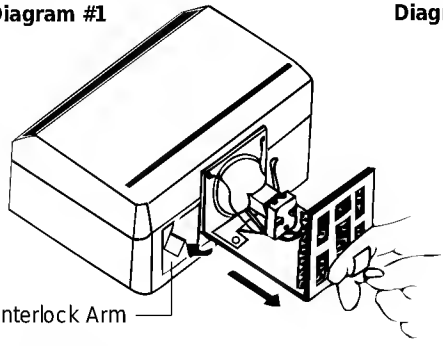
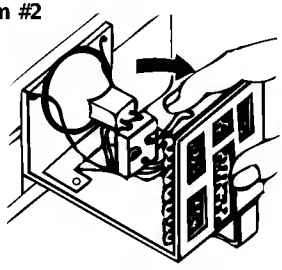


Diagram #2



3. Push release lever down; Diagram #2. Grasp expired lamp by its base and remove from lamp holder.
4. **IMPORTANT:** Reposition release lever up to original position prior to installing new lamp. Replace only with a Welch Allyn Lamp No. 04200.
5. Visually inspect replacement lamp reflector and bulb, and remove any grease or fingerprints with a clean cloth moistened with alcohol, if required.
6. Slide new lamp into lamp holder socket until it **"snaps"** into place. Make sure lamp is securely seated to assure maximum light output.
7. Slide lamp holder back into light box. Reengage interlock by moving arm to the right.

WARNING:

When sliding the lamp holder back into the light box, hold the light box down to avoid pushing it off of the mounting plate and possibly dropping it.

8. Plug line cord back into unit, and into wall outlet.

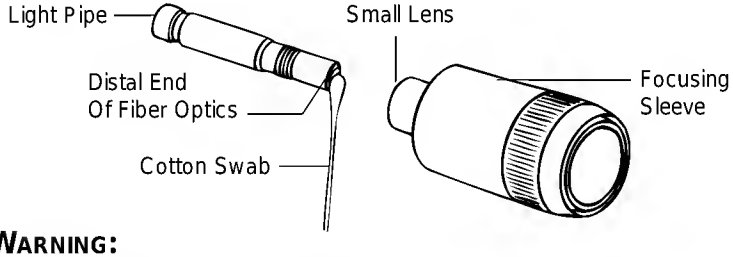
CLEANING

LENSES

- Remove the focusing sleeve from the fiber optic bundle by unthreading counter-clockwise.
- Use a cotton swab soaked in warm water and mild detergent to clean both the distal end of the fiber optics and the proximal side of the small lens. (See diagram for locations.)
- Reassemble focusing sleeve to Light Pipe.
- The window may also be cleaned with warm water and mild detergent.

LIGHT PIPE

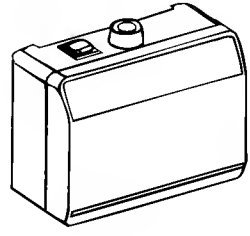
- To maintain unit cleanliness, use disposable Sheath (No. 52640).
- May be cleaned with a mild detergent and water solution.



WARNING:
Do not clean lens or window with alcohol.

LIGHT BOX

Do not Sterilize.
Do not Immerse in Cleaning Solutions.



1. Unplug the unit from the wall outlet prior to cleaning.
2. Insert the red plastic plug into the Light Pipe socket prior to cleaning. This will prevent the cleaning solution from getting into the filter inside the unit.
3. Wipe the surfaces of the unit with a cloth dampened in a mild solution of detergent and water. Wipe dry with a clean, dry cloth.
4. The power cord may be wiped clean using the same detergent solution as the box. Care must be taken not to get the plug prongs wet. Wipe dry with a clean, dry cloth.
5. Do not plug the unit back into the wall outlet until it is thoroughly dry.

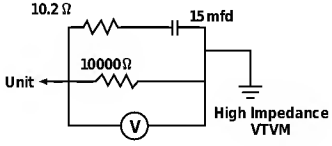
MAINTENANCE

GENERAL

Periodic electric inspections should be made by qualified personnel.

LEAKAGE CURRENT TEST

The leakage current measured from any exposed metal to ground with input voltage of 120v, 60 Hz (or 240v, 50 Hz) and the ground wires securely connected shall not exceed .0475v max. or 50 ma.



GROUND CONTINUITY

The resistance measured from the ground pin of the plug to the exposed metal on unit should be 1.6v max.

REPAIR

For repair by qualified personnel, contact your local authorized Welch Allyn distributor, or contact Welch Allyn directly at (315) 685-4560.

SPECIFICATIONS

Model No. 48600
Model No. 48625

Power Cord—3 x 10 mm², #18 AWG, 3 wire grounded cord set, 8 feet (3 meters) long.

Model	Input	Output	Fuse: 2x Slowblo 250V
48600	120 VAC, 60 Hz, 0.35A	12 VAC, 3.0A	500 MA
48620	100 VAC, 50/60 Hz, 0.42A	12 VAC, 3.0A	630 MA
48622	220 VAC, 50 Hz, 0.19A	12 VAC, 3.0A	200 MA
48624	240 VAC, 50 Hz, 0.18A	12 VAC, 3.0A	200 MA
48626	240 VAC, 50 Hz, 0.18A	12 VAC, 3.0A	200 MA

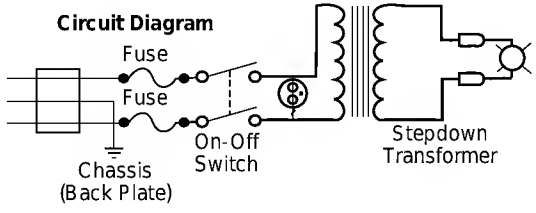
Supplied with 4 foot (122 cm) Fiber Optic Light Pipe.

Weight—Approximately 5.5 pounds (2.5 KGms) without mounting plate and Light Pipe.

Dimensions:
H: 7.25 inches (18.42 cm)
W: 7.625 inches (19.37 cm)
D: 3.75 inches (9.53 cm)

Leakage Current: Less than 10 microamps from any metal part when correct ground is used; less than 100 microamps from any metal part with ground disconnected.

Circuit Diagram



IEC 601-1
TYPE B, CLASS I
CONTINUOUS OPERATION

CE The CE mark on this product indicates it has been tested to and conforms with the provisions noted within the 89/336/EEC electromagnetic compatibility directive.

WARRANTY

LIGHT BOX

The Light Box is guaranteed by Welch Allyn against all manufacturing defects. Welch Allyn will repair or replace, free of charge, any parts of its own manufacture proven to be defective through causes other than misuse, neglect, damage in shipment or normal wear.

LIGHT PIPE

The Welch Allyn Fiber Optic Light Pipe is guaranteed not to drift once positioned if mounted vertically according to the enclosed instructions. This warranty is for a two-year period from original date of purchase provided the Light Pipe has not been tampered with or abused. Any Welch Allyn Fiber Optic Light Pipe which proves to drift once positioned, will be repaired or replaced without charge upon receipt of the unit, prepaid.

Welch Allyn®

Welch Allyn, Inc.
Medical Division
4341 State Street Road
P.O. Box 220
Skaneateles Falls, NY 13153-0220
U.S.A.

Telephone: (315) 685-4560
Fax: (315) 685-3361

Printed in U.S.A.

Part No. 488430-2